

9/1 Cont forming a source electrode 23 and a drain electrode 21. Additionally, part of the active layer 17 is exposed. The exposed portion of the active layer 17 becomes a channel.

REMARKS

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The non-Final Office Action of April 19, 2002 has been received and contents carefully reviewed.

Claims 1-20 are pending in this application. Reexamination and reconsideration are respectfully requested.

The Examiner objected to the disclosure because of informalities. Applicants submit changes to the specification to correct these informalities. Applicants respectfully request that the objection be withdrawn.

The Examiner rejected claims 1, 2, 4-6, and 8-20 under 35 U.S.C. § 102(e) as being anticipated by Kim et al. (U.S. Patent No. 6,038,008); rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Kim et al. (U.S. Patent No. 6,038,008) in view of Kim (U.S. Patent No. 6,060,130); rejected claim 7 under 35 U.S.C. § 103(a) as being unpatentable over Kim (U.S. Patent No. 6,060,130); rejected claims 1, 2, and 4-20 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 and 15-17 of U.S. Patent No. 6,038,008; and rejected claim 3 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 of U.S. Patent No. 6,038,008 in view of claim 5 of U.S. Patent No. 6,060,130. Applicants respectfully traverse these rejections.

Applicants respectfully submit that the present invention and the subject matter of Kim et al. and Kim were commonly owned by or subject to an obligation of assignment to LG Electronics, Inc. at the time the invention was made. In this regard, Applicants respectfully point

out that the cover pages of these two patents clearly indicate an assignment to LG Electronics, Inc.

Effective November 29, 1999, subject matter which was prior art under former 35 U.S.C. 103 via 35 U.S.C. 102(e) is now disqualified as prior art against the claimed invention if that subject matter and the claimed invention "were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person." This change to 35 U.S.C. 103(c) applies to all utility, design and plant patent applications filed on or after November 29, 1999, including continuing applications filed under 37 CFR 1.53(b), continued prosecution application filed under 37 CFR 1.53(d), and reissues. MPEP 706.02(I)(1).

M.P.E.P. § 706.02(3) provides that:

"Applications and patents will be considered to be owned by, or subject to an obligation of assignment to, the same person, at the time the invention was made if:

(A) the assignment records for the application(s) and patent(s) on PALM show that there was common ownership or an obligation to assign to the same person at the time of the invention ..."

The assignment of the present application recorded at Reel 011349, Frame 0160 is in favor of LG Philips LCD Co., Ltd.

Therefore, Applicant respectfully submits that Kim et al. and Kim are no longer prior art under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) for the present application.

Even if Kim et al. and Kim were prior art, in Kim et al., the surface of the organic protection layer is treated by sputter etching, dry etching, or ultra-violet (UV) radiation treatment to produced a rough (or irregular) surface profile. In Kim, an organic material thin film containing silicon is decomposed into radicals by irradiating UV light of predetermined energy, in an atmosphere of air or oxygen. The different radicals, except Si radicals, are coupled with

other components (which were decomposed by UV light in the atmosphere of air or oxygen) and removed as gases. However, the Si radicals react with O radicals in air to form an insulating film 104 such as SiO_x , where $X = 1$ or 2 .

In contrast, the present application teaches irradiating the surface of a passivation layer having a hydrophobic property with UV rays having wavelengths of about 100 to 200nm at a normal (atmospheric) pressure to form a buffer layer, beneficially of SiO_2 or of another oxide.

Applicants submit an English translation of KR 98-40306 and KR 99-38011, which correspond to US Patent Nos. 6,038,008 and 6,060,130, respectively. Applicants respectfully submit the claims are not obvious over Kim et al. and Kim because they differ in scope from the claims of these two patents.

Claims 1-8 of the present application are drawn to a method of fabricating a liquid crystal display including a combination of elements, for example, irradiating the organic passivation layer with ultraviolet rays to form a hydrophilic buffer layer. Claims 9-20 of the present application are drawn to a liquid crystal display including a combination of elements for example, a buffer layer over said passivation layer.

Claims 1-10 of Kim et al. are drawn to a method of manufacturing a liquid crystal display having a gate bus line, a data bus line, and a switching element with a drain electrode over a substrate including a combination of elements, for example, exposing substantially an entire surface of the protection layer to an atmosphere that can remove some of atomic elements constituting the protection layer to convert substantially the entire surface of the protection layer to a roughened surface having a microscopic unevenness.

Claims 15-17 of Kim et al. are drawn to a method of manufacturing a laminated structure of an organic layer and a transparent conductive layer over a substrate for use in an LCD including a combination of elements, for example, performing at least one of dry etching,

sputter etching, and UV irradiation on substantially an entire surface of the organic layer to convert substantially the entire surface of the organic layer to a roughened surface having a microscopic unevenness.

Claim 5 of Kim is drawn to a method of forming insulating films for a liquid crystal display including a combination of elements, for example, destroying molecular bonds of the thin film to generate a plurality of radicals comprising Si radicals and O radicals by irradiating UV light onto the organic silicon-containing material thin film through said atmosphere, wherein the UV light has a wavelength equal to or lower than 210 nm and a power equal to or higher than 30 W.


Applicants respectfully submit that the double patenting rejection should be withdrawn with respect to this application since these claims are drawn to a different invention and are patentably distinct.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned **“Version with markings to show changes made.”**

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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Respectfully submitted,
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Version With Markings to Show Changes Made

In the Specification

On Page 3, paragraph beginning on line 21:

Referring now to Figure 1C, a metal layer is then deposited over the resulting structure, beneficially using either CVD or sputtering. In particular, the metal layer is formed over the ohmic contact layer 19 so as to make electrical contact with the ohmic contact layer 19. Beneficially, the metal layer is comprised of molybdenum (Mo), chrome (Cr), titanium (Ti) or tantalum (Ta), or of a molybdenum alloy such as MoW, MoTa or MoNb. The metal layer is then patterned by photolithography to expose the gate insulating film 15. Additionally, part of the metal layer over the gate electrode 13 and part of the ohmic contact layer 19 is removed, thereby forming a source electrode [21] 23 and a drain electrode [23] 21. Additionally, part of the active layer 17 is exposed. The exposed portion of the active layer 17 becomes a channel.